

REMARKS

Claims 1-10 and 14 are pending in the present application, of which claim 14 has been withdrawn from consideration.. Claims 1-10 stand rejected. By this amendment, claims 1, 2 and 7-9 have been amended. In view of the amendments to the claims and the remarks below, Applicants respectfully request that the rejections be withdrawn and that the claims be allowed.

Claims 1-10 stand rejected under 35 U.S.C. § 101 for lacking patentable utility. Specifically, the Office Action alleges that claims 1-10 fail to recite “any particular improvement or resultant characteristic imparted to the generic sample investigated by the instant process nor how the recited process analysis would be used to yield any useful information to said investigated sample.” Office Action, p. 3. The rejection is respectfully traversed.

Claim 1 has been amended to recite “a method of viewing compositional inhomogeneities in a chemical sample as a function of depth.” As explained in the application, a quality of a chemical sample is often dependent upon the distribution of its compositional makeup. Application, pp. 1-2. The method of claim 1 is achieved by irradiating the sample with radiation having a plurality of frequencies in the range from 25 GHz to 100 THz, detecting radiation reflected from and/or transmitted by said sample to obtain a time domain waveform, and obtaining frequency data as a function of time from the time domain waveform. Using the frequency data, an image is derived, “wherein variations in the frequency data result in inhomogeneities in the image,” thus indicating “compositional inhomogeneities of the chemical sample.” Therefore, claim 1 recites a useful method that results in the generation of an image that allows a person to determine whether compositional homogeneities exist in the chemical sample. Accordingly, claim 1 recites a method that has patentable utility.

Claim 2 recites “a method of viewing a granularity of a chemical sample as a function of depth.” The method includes “irradiating the sample with radiation having a plurality of frequencies in the range from 25 GHz to 100 THz, detecting radiation reflected from and/or transmitted by said sample to obtain a time domain waveform, [and] obtaining frequency data as a function of time from the time domain waveform.” Using the frequency data, an image is derived,

“wherein variations in the frequency data result in inhomogeneities in the image indicating variations in granularity of the chemical sample.” As explained in the application, knowledge of a chemical sample’s compositional granularity is useful in determining the quality of the chemical sample. Application, pp. 1-2. Therefore, claim 2 recites a useful method that results in the generation of an image that allows a person to determine the compositional granularity of the chemical sample. Accordingly, claim 1 recites a method that has patentable utility.

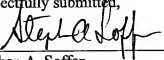
Claims 3-10 depend from claim 1 and are allowable for at least the same reasons that claim 1 is allowable. Therefore, Applicants respectfully request that the rejection be withdrawn and that the claims be allowed.

Claims 1-10 stand rejected under 35 U.S.C. § 112, first paragraph, for failing to enable one skilled in the art to use the claimed invention since the claims allegedly lack utility. However, as explained above, claims 1 and 2 have been amended to clarify their utility. Accordingly, a person of ordinary skill in the art would understand the utility of the claimed methods and would thus be able to perform the recited steps of the claimed methods to carry-out the recited function of the claims. Therefore, for at least the same reasons explained above in relation to the utility of claims 1-10, the claims are allowable and the § 112 rejection should be withdrawn.

In view of the above amendment, Applicants believe the pending application is in condition for allowance. If there are any additional charges in connection with this filing or any subsequent filings (including but not limited to issue fees), the Examiner is respectfully requested and authorized to charge Deposit Account No. 04-1073 therefor under Order No. M0025.0336/P336.

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Respectfully submitted,

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